

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/016337 A1

(51) International Patent Classification⁷: **A61K 31/407**,
A61P 9/10, 9/12

(74) Agents: **WILSON, Kathryn, S. et al.**; James & Wells
Tower, Level 9, 56 Cawley Street, Private Bag, 11907
Auckland (NZ).

(21) International Application Number:
PCT/NZ2004/000184

(22) International Filing Date: 13 August 2004 (13.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
527607 15 August 2003 (15.08.2003) NZ

(71) Applicant (for all designated States except US): **AGRE-
SEARCH LIMITED** [NZ/NZ]; East Street, Ruakura
Campus, Hamilton (NZ).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DALZIEL, Julie**,
Eleanor [NZ/NZ]; 11/109 Te Awe Awe Street, Palmer-
ston North (NZ). **DUNLOP, James** [NZ/NZ]; 4 Sharon
Place, Palmerston North (NZ). **MUNDAY-FINCH, Sarah**,
Christine [NZ/NZ]; 20 Greenough Place, Hamilton (NZ).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

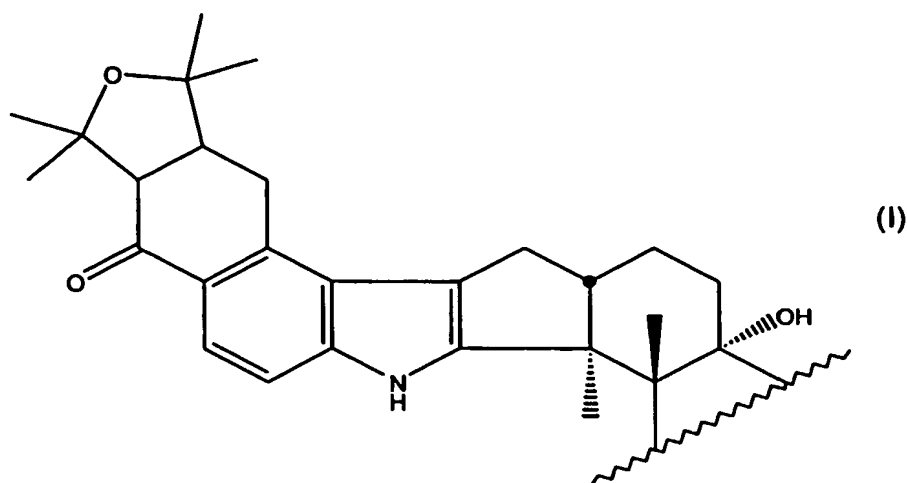
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: CHANNEL BLOCKING COMPOUNDS



(57) Abstract: The invention relates to compositions and associated methods and uses that contain lolitrem compounds containing the moiety shown in structure (I) or derivatives thereof for ion channel antagonist applications, particularly BK channel antagonist applications. Preferred compounds include lolitrem B, 31-*epi*lolitrem B, lolitriol and lolitrem E. For lolitrem B, a particularly strong and long acting blocking effect is identified.

WO 2005/016337 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.